

## Claims

1     1.    In a computer system in which a first thread and a  
2     second thread execute concurrently in a common address  
3     space, a method of facilitating the handling of an external  
4     event by said first thread, comprising the steps of:

5         sending a quiesce event from said first thread to said  
6     second thread to cause said second thread to quiesce;

7         suspending execution of said first thread until said  
8     second thread has quiesced in response to the quiesce event  
9     sent to that thread; and

10        resuming execution of said first thread to process said  
11     event when said second thread has quiesced in response to  
12     the quiesce event sent to that thread.

1     2.    The method of Claim 1 wherein said second thread is one  
2     of a plurality of additional threads executing concurrently  
3     with said first thread in said address space, said quiesce  
4     event being sent from said first thread to each of said  
5     additional threads.

1     3.    The method of Claim 2 wherein execution of said first  
2     thread is suspended until each of said additional threads  
3     has quiesced in response to the quiesce event sent to that  
4     thread.

1     4.    The method of Claim 3 wherein the last of said  
2     additional threads to quiesce resumes execution of said  
3     first thread.

1     5.    The method of Claim 1 wherein said quiesce event is  
2     sent from said first thread to said second thread in  
3     response to the detection of said external event by said  
4     first thread.

1     6.    The method of Claim 1 wherein said quiesce event is a

2        termination event causing said second thread to terminate.

1        7.    The method of Claim 1 wherein said quiesce event is a  
2        suspension event causing said second thread to suspend.

1        8.    The method of Claim 1 wherein said step of sending a  
2        quiesce event from said one thread to said second thread  
3        comprises the step of interrupting the execution of said  
4        second thread to give control to a quiesce exit routine.

1        9.    The method of Claim 8 wherein said quiesce exit routine  
2        checks to determine whether said second thread is holding  
3        any critical resource and quiesces said second thread only  
4        if it determines that the second thread is not holding any  
5        critical resource.

1        10.   The method of Claim 1, comprising the further steps of:  
2               determining whether said second thread is holding any  
3               critical resource; and  
4               quiescing said second thread only it is determined that  
5               the second thread is not holding any critical resource.

1        11.   The method of Claim 10, further comprising the step of  
2               releasing any critical resource held by said second thread  
3               before quiescing said second thread.

1        12.   In a computer system in which a first thread and a  
2               second thread execute concurrently in a common address  
3               space, a method of facilitating the handling of an external  
4               event by said first thread, comprising the steps of:  
5                      sending a suspension event from said first thread to  
6                      said second thread to cause said second thread to suspend;  
7                      suspending execution of said first thread until said  
8                      second thread has suspended in response to the suspension  
9                      event sent to that thread;  
10                      resuming execution of said first thread to process said

11 event when said second thread has suspended in response to  
12 the suspension event sent to that thread; and  
13 resuming said second thread following the processing of  
14 said event by said first thread.

1 13. The method of Claim 12 wherein a plurality of  
2 additional threads execute concurrently with said first  
3 thread in said address space, said quiesce event being sent  
4 from said first thread to each of said additional threads.

1 14. The method of Claim 13 wherein execution of said first  
2 thread is suspended is suspended until each of said  
3 additional threads has quiesced in response to the quiesce  
4 event sent to that thread.